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INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)

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Atty. Docket No.	2481.1679-00		Serial No. 09/	627,787		46			
Applicant	Eugen UHLMANN et	al.			25	2 2 2000			
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Examiner Initial*	Document Number	Date	Name	Class	Sub Class	Filing Date If A Repolate IVED			
RS	6,033,909	03-07-2000	Uhlmann et al.	435	375	DEC 2 8 200°C			
		FOREIGN PAT	ENT DOCUMENTS	<u>}</u> .		TEOU CENTER 1600/200			
	Document Number	Date	Country	Class	Sub Class	TECH CENTER 1600/290 Translation Yes or N			
	0 552 766 A2	07-28-93	√			No			
	OTHER DOCUMEN	NTS (Including Au	uthor, Title, Date, F	Pertinent F	Pages, Etc	;.)			
1.			rrection of the Mutance, Vol. 273, pp. 13	•		Sickle Cell Anemia by			
2.	James C. NORTO		of human telomera 15-619 (1996).	ase activity	by peptide	e nucleic acids,"			
3.		C. Frank BENNETT, et al., "Cationic Lipids Enhance Cellular Uptake and Activity of Phosphorothioate Antisense Oligonucleotides," Molecular Pharmacology, Vol. 41, pp. 1023-1033 (1992).							
4.	Pieter BREEUWER, et al., "Characterization of Uptake and Hydrolysis of Fluorescein Diacetate and Carboxyfluorescein Diacetate by Intracellular Esterases in Saccharomyce's cerevisiae, Which Result in Accumulation of Fluorescent Product," Applied and Environmental Microbiology, Vol. 61, No. 4, pp. 1614-1619 (1995).								
5.		Radhakrishnan P. IYER, et al., "Bioreversible Oligonucleotide Conjugates by Site-Specific Derivatization," Biorganic & Medicinal Chemistry Letters, Vol. 7, No. 7, pp. 871-876 (1997).							
6.		Clara L. KIELKOPF, et al., "A Structural Basis for Recognition of A • T and T • A Base Pairs in the Minor Groove of B-DNA," Science, Vol. 282, pp. 111-115 (1998).							
7.	1 •	Eugen UHLMANN, et al., "Antisense Oligonucleotides: A New Therapeutic Principle," Chemical Reviews, Vol. 90, No. 4, pp. 544-584 (1990).							
8.	-	Jürg HUNZIKER, et al., "Nucleic Acid Analogues: Synthesis and Properties," Modern Synthetic Methods, Ed. Beat Ernst et al., pp. 333-417 Verlag Helvetica Chimica Acta, Basel (1995).							
9.	nucleoside oligome	Eugene P. STIRCHAK, et al., "Uncharged stereoregular nucleic acid analogs: 2. Morpholino nucleoside oligomers with carbamate internucleoside linkages," Nucleic Acids Research Vol. 17, No. 15, pp. 6129-6141 (1989).							
10.		James SUMMERTON, et al., "Morpholino Antisiense Oligomers: Design, Preparation, and Properties," Antisense & Nucleic Acid Drug Development, Vol. 7, pp. 187-195 (1997).							
11.	•	Peter E. NIELSEN, et al., "Peptide Nucleic Acid (PNA). A DNA Mimic with a Peptide Backbone," Bioconjugate Chem., Vol. 5, pp. 3-7 (1994).							
									

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OMB No. 0651-0011

NFORMATION DISCLOSURE CITATION

Atty. Docket No. 024874899-00 Serial No. 09/627,787

Applicant Eugen UHLMANN et al.

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ımber			Class	If Appropriate
February 6	6, 2001 Josel,	et al. 546	6 48	
				

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Sub Class	Translation Yes or No
/	2	EP 0 962 497 A1	December 8, 1999	EPO	-C-09 B	11/24	- No
V	3	WO 95/06659	March 9, 1995	PCT	C=07 H	21/00	
	1						

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)					
	Dieter Starke, et al. "Bile Acid–Oligodeoxynucleotide Conjugates: Synthesis and Liver Excretion in Rats" Bioorganic & Medicinal Chemistry Letters 11:945-949 (2001)				
	Neil A. Whittemore, et al. "Synthesis and Electrochemistry of Anthraquinone— Oligodeoxynucleotide Conjugates" <i>Bioconjugate Chem.</i> 10:261-270 (1999)				
	Kenneth R. Luehrsen, et al. "High-density Hapten Labeling and HRP Conjugation of Oligonucleotides for Use as In Situ Hybridization Probes to Detect mRNA Targets in Cells and Tissues" The Journal of Histochemistry & Cytochemistry 48(1):133-145 (2000)				
	Antonina Rait, et al. "3'-End Conjugates of Minimally Phosphorothioate-Protected Oligonucleotides with 1-O-Hexadecylglycerol: Synthesis and Anti-ras Activity in Radiation-Resistant Cells" Bioconjugate Chem. 11(2):153-160 (2000)				
	Muthiah Manoharan "2'-Carbohydrate modifications in antisense oligonucleotide therapy: importance of conformation, configuration and conjugation" <i>Biochimica et Biophysica Acta</i> 1489:117-130 (1999)				
	Thazha P. Prakash, et al. "2'-O-{2-[N,N-(Dialkyl)aminooxy]ethyl}-Modified Antisense Oligonucleotides" Organic Letters 2(25): 3995-3998 (2000)				

Examiner	alla	Date Considered	12/20/01

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	OTHER DOCUMENTS (Includi	na Author Tit	ilo Dato Bort	inant Bass		
	Kenneth R. Luehrsen, et al Oligonucleotides for Use as Tissues" The Journal of His	. "High-density s In Situ Hybrid	Hapten Label	ing and HR s to Detect	RP Conjugat	ets in Cells and
					 	
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